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Notice of Allowability	Application No.	Applicant(s)	
	10/713,376	WOOD, GRADY M.	
	Examiner	Art Unit	
	Thuy V. Tran	2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to filing on 11/14/2003 & Telephone Interview held on 02/18/2005.
2. ☒ The allowed claim(s) is/are 1-20.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

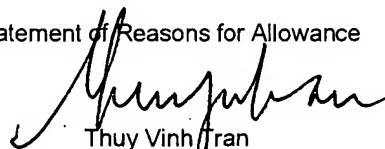
* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date 021905.
- Identifying Indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>021905.</u> 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____ |
|--|---|


 Thuy Vinh Tran
 Primary Examiner
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DETAILED ACTION

This is a response to the Applicant's filing on 11/14/2003 and the telephone interview held on 02/18/2005. In virtue of this filing, claims 1-20 are currently presented in the instant application.

Examiner's Amendment

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Gary R. Stanford on 02/18/2005.

The application has been amended as follows:

In the Claims:

Claim 19, between line 4 and line 5 (or between the steps of "converting a low voltage DC signal to a high voltage DC signal" and "selecting from among a plurality of outputs", insert a step of --coupling the high voltage DC signal to a plurality of DC-AC converters providing a plurality of outputs;--; and

Claim 19, line 5, change "a" to --the-- (in the step of "selecting from among a plurality of outputs").

Comments on the drawing

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2. As discussed during the interview held on 02/18/2005, Mr. Gary R. Stanford agrees to submit a formal drawing including a clear description of parts/elements/components, legible textual characters, and reference numerals.

Allowable Subject Matter

3. Claims 1-20 are allowed.

Reasons for Allowance

4. The following is an examiner's statement of reasons for allowance:

Prior art fails to disclose or fairly suggest:

- A multiplexed high voltage DC-AC driver comprising a plurality of DC-AC switches, each receiving an input DC voltage, and each operative, when enabled, to toggle its output at a rate based on a master clock signal and at a voltage based on the input DC voltage, and decoder logic that enables selected ones of the at least one high side switch and that enables the low side switch when any high side switch is enabled, in combination with the remaining claimed limitations as called for in independent claim 1 (claims 2-11 are allowed since they are dependent on claim 1);
- A multiplexed DC-AC converter comprising a DC-AC multiplexer, coupled to the boost DC-DC converter, comprising a plurality of DC-AC switches, each converting when selected, the second DC voltage to a corresponding one of a plurality of AC output voltages in which each AC output voltage is switched between first and second DC voltage levels based on the second DC voltage at a rate based on a common clock signal and select logic that selects among the at least one high side switch and that selects the low side switch when any high side switch is selected, in combination with

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the remaining claimed limitations as called for in independent claim 12 (claims 13-18 are allowed since they are dependent on claim 12); and

- A method of converting a DC voltage to a plurality of multiplexed AC voltages comprising selecting from among the plurality of outputs, enabling a corresponding one of a plurality of first DC-AC converters for each selected output, enabling a second DC-AC converter when any of the first DC-AC converter are enabled, and switching, by the second DC-AC converter when enabled, a common output between the high-voltage DC signal and ground, and switching the second DC-AC converter out-of-phase relative to each first DC-AC converter, in combination with the remaining claimed limitations as called for in independent claim 19 (claim 20 is allowed since it is dependent on claim 19).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Citation of relevant prior art

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Prior art Lipo et al. (U.S. Patent No. 6,031,738) discloses a DC bus voltage balancing and control in multilevel inverters.

Prior art Unger et al. (U.S. Patent No. 6,021,052) discloses a DC/AC power converter.

Prior art Wacyk et al. (U.S. Patent No. 5,798,620) discloses a fluorescent lamp dimming circuit.

Prior art Nguyen et al. (U.S. Patent No. 5,600,548) discloses a DC control for an inverter.

Prior art Matouk et al. (U.S. Patent No. 4,691,274) discloses a modular power supply.

Prior art Parro, II (U.S. Patent No. 4,595,976) discloses an inverter controller.

Prior art Gurr (U.S. Patent No. 4,296,462) discloses an inverter controller.

Prior art Johnson (U.S. Patent No. 4,017,744) discloses power converters.

Prior art Unger et al. (U.S. Patent No. 6,021,052) discloses a DC/AC power converter.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thuy V. Tran whose telephone number is (571) 272-1828. The examiner can normally be reached on M-F (8:00 AM -5:00 PM).

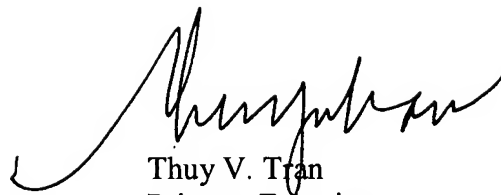
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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A handwritten signature in black ink, appearing to read 'Thuy V. Tran', is positioned above the printed name.

Thuy V. Tran
Primary Examiner
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02/19/2005